



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,699	02/01/2002	Scott C. Young	LEG03 P-317	1548
7590 06/02/2004				
SCOTT C. YOUNG ET AL. 695 Kenmoor, S. E. Post Office Box 2567 Grand Rapids, MI 49501			EXAMINER HEWITT, JAMES M	
			ART UNIT 3679	PAPER NUMBER
DATE MAILED: 06/02/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/061,699

Applicant(s)

YOUNG ET AL.

Examiner

James M Hewitt

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

In view of the appeal brief filed on 1/16/04, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 3679

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 4, 6-8, 10-11, 13 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the submitted IDS document disclosing Marshall Brass' Part F21B34 in view of Elvin (US 946,025).

With respect to claim 1, the document depicting Marshall Brass' Part F21B34 (hereinafter "The F21B34 document") shows a swivel drop ear elbow fitting comprising: a threaded nut (3) including a plurality of integrated ears (see Attachment A) located along an external periphery of the threaded nut; a retaining ring (2); and a hollow elbow adapter (1) including a first portion centrally positioned with respect to a first axis (see Attachment A) and a second portion centrally positioned with respect to a second axis (see Attachment A), wherein the second axis is not colinear with the first axis, and wherein an outer surface of the first portion is shaped to receive the retaining ring (see "Section A-A") which retains the threaded nut on the first portion of the hollow elbow adapter while allowing the hollow elbow adapter to rotate (swivel) with respect to the threaded nut. The F21B34 document does not disclose that the ears include an aperture for receiving a fastener for securing the threaded nut to a stationary support. Elvin teaches a swivel fitting comprising a threaded nut (7) that is threadedly attached to an external stationary member or support (3) in order to permit attachment of a pipe (4).

Art Unit: 3679

The support (3) includes a flange (3b) having apertures therein for alignment with apertures disposed in ears of the nut (7) to permit a split pin or cotter (8) to pass through the aligned apertures to lock the nut in position. In view of Elvin's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ears of the F21B34 document with apertures in order to prevent unwanted rotation of the nut after the nut has been connected to an external member, like member (3) in Elvin, that allows the fitting to be securely attached to a pipe, like pipe (4) in Elvin.

With respect to claim 2, wherein the first axis is substantially orthogonal with respect to the second axis.

With respect to claim 4, wherein the plurality of integrated attachment ears includes three attachment ears that are equally spaced along the external periphery of the threaded nut.

With respect to claim 6, wherein an outer surface of the second portion of the hollow elbow adapter includes a plurality of axially spaced ribs (see Attachment A).

With respect to claim 7, further including a seal (4) with an inner diameter sized to receive the first portion of the hollow elbow adapter and an outer diameter sized to substantially eliminate fluid leakage between the end fitting and an external fitting that is threadingly received by the threaded nut*.

*Note that the Examiner has not considered the external fitting to be positively claimed, and that the outer diameter of the seal is considered to be sized to eliminate

Art Unit: 3679

fluid leakage between the end fitting and a given external fitting that is threadingly received by the threaded nut.

With respect to claim 8, wherein the seal is a cone-shaped seat made of an elastomeric material (santoprene).

With respect to claim 10, the document depicting Marshall Brass' Part F21B34 (hereinafter "The F21B34 document") shows a swivel drop ear elbow fitting comprising: a threaded nut (3) including a plurality of integrated ears (see Attachment A) located along an external periphery of the threaded nut; a retaining ring (2); and a hollow elbow adapter (1) including a first portion centrally positioned with respect to a first axis (see Attachment A) and a second portion centrally positioned with respect to a second axis (see Attachment A), wherein the second axis is not colinear with the first axis, and wherein an outer surface of the first portion is shaped to receive the retaining ring (see "Section A-A") which retains the threaded nut on the first portion of the hollow elbow adapter while allowing the hollow elbow adapter to rotate (swivel) with respect to the threaded nut; and a seal (4) with an inner diameter sized to receive the first portion of the hollow elbow adapter and an outer diameter sized to substantially eliminate fluid leakage between the end fitting and an external fitting that is threadingly received by the threaded nut* (see above Note). The F21B34 document does not disclose that the ears include an aperture for receiving a fastener for securing the threaded nut to a stationary support. Elvin teaches a swivel fitting comprising a threaded nut (7) that is threadedly attached to an external stationary member or support (3) in order to permit attachment of a pipe (4). The support (3) includes a flange (3b) having apertures therein for

Art Unit: 3679

alignment with apertures disposed in ears of the nut (7) to permit a split pin or cotter (8) to pass through the aligned apertures to lock the nut in position. In view of Elvin's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ears of the F21B34 document with apertures in order to prevent unwanted rotation of the nut after the nut has been connected to an external member, like member (3) in Elvin, that allows the fitting to be securely attached to a pipe, like pipe (4) in Elvin.

With respect to claim 11, wherein the first axis is substantially orthogonal with respect to the second axis.

With respect to claim 13, wherein the plurality of integrated attachment ears includes three attachment ears that are equally spaced along the external periphery of the threaded nut.

With respect to claim 15, wherein an outer surface of the second portion of the hollow elbow adapter includes a plurality of axially spaced ribs (see Attachment A).

With respect to claim 16, wherein the seal is a cone-shaped seat made of an elastomeric material (santoprene).

Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 document in view of Elvin (US 946,025) as applied to claims 1 and 10 above, and further in view of Novakovich et al (US 3,376,053).

The combination of the F21B34 document and Elvin teach all the limitations of claims 3 and 12 except that the first axis forms an obtuse angle with respect to the

Art Unit: 3679

second axis. Novakovich et al, in Figure 4, teaches an elbow fitting formed of a first portion defining a first axis and a second portion defining a second axis, wherein the first axis forms an obtuse angle with respect to the second axis. In view of Novakovich's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the first and second portions of the elbow adapter (1) of the F21B34 document so that the first axis forms an obtuse angle with respect to the second axis in order for the fitting to be used in an application that requires the adapter to be angled, or requires the adapter to be capable of the range of motion (swiveling) that an obtusely angled adapter would provide.

Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 document in view of Elvin (US 946,025) as applied to claims 1 and 10 above, and further in view of Martin (US 2,373,253).

The combination of the F21B34 document and Elvin teach all the limitations of claims 5 and 14 except that the retaining ring is grooveless. The F21B34 document does not disclose whether or not the retaining ring (2) is grooveless. Nevertheless, Martin teaches an elbow fitting assembly employing a grooveless retaining ring (washer 18). In view of Martin's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a grooveless retaining ring in order to better accommodate the outer surface of the elbow adapter and not cause the wear against the outer surface of the adapter that a grooved or ribbed retaining ring would cause.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 document in view of Elvin (US 946,025) as applied to claim 1 above, and further in view of Humber (US 5,305,785).

The combination of the F21B34 document and Elvin teach all the limitations of claim 9 except that the threads of the threaded nut are straight threads. The F21B34 document does not explicitly disclose what type of threads are used for the threaded nut. Nevertheless, Humber discloses a threaded nut (32) having straight threads. In view of Humber's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a threaded nut having straight threads in order to permit connection of the nut to a fitting or pipe having straight threads.

Claims 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 document in view of Elvin (US 946,025), and further in view of Humber (US 5,305,785), and still further in view of Novakovich et al (US 3,376,053).

With respect to claim 17, the document depicting Marshall Brass' Part F21B34 (hereinafter "The F21B34 document") shows a swivel drop ear elbow fitting comprising: a threaded nut (3) including a plurality of integrated ears (see Attachment A) located along an external periphery of the threaded nut; a retaining ring (2); and a hollow elbow adapter (1) including a first portion centrally positioned with respect to a first axis (see Attachment A) and a second portion centrally positioned with respect to a second axis

Art Unit: 3679

(see Attachment A), and wherein an outer surface of the first portion is shaped to receive the retaining ring (see "Section A-A") which retains the threaded nut on the first portion of the hollow elbow adapter while allowing the hollow elbow adapter to rotate (swivel) with respect to the threaded nut; and a cone-shaped seat (4) made of elastomeric material (santoprene) with an inner diameter sized to receive the first portion of the hollow elbow adapter and an outer diameter sized to substantially eliminate fluid leakage between the end fitting and an external fitting that is threadingly received by the threaded nut* (see above Note). The F21B34 document does not disclose that the ears include an aperture for receiving a fastener for securing the threaded nut to a stationary support. Elvin teaches a swivel fitting comprising a threaded nut (7) that is threadedly attached to an external stationary member or support (3) in order to permit attachment of a pipe (4). The support (3) includes a flange (3b) having apertures therein for alignment with apertures disposed in ears of the nut (7) to permit a split pin or cotter (8) to pass through the aligned apertures to lock the nut in position. In view of Elvin's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ears of the F21B34 document with apertures in order to prevent unwanted rotation of the nut after the nut has been connected to an external member, like member (3) in Elvin, that allows the fitting to be securely attached to a pipe, like pipe (4) in Elvin. The F21B34 document also does not disclose that the threads of the threaded nut are straight threads. The F21B34 document does not explicitly disclose what type of threads are used for the threaded nut. Nevertheless, Humber teaches a threaded nut (32) having straight

Art Unit: 3679

threads. In view of Humber's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a threaded nut having straight threads in order to permit connection of the nut to a fitting or pipe having straight threads. The F21B34 document also does not disclose that the first axis forms an obtuse angle with respect to the second axis. Novakovich et al, in Figure 4, teaches an elbow fitting formed of a first portion defining a first axis and a second portion defining a second axis, wherein the first axis forms an obtuse angle with respect to the second axis. In view of Novakovich's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the first and second portions of the elbow adapter (1) of the F21B34 document so that the first axis forms an obtuse angle with respect to the second axis in order for the fitting to be used in an application that requires the adapter to be angled, or requires the adapter to be capable of the range of motion (swiveling) that an obtusely angled adapter would provide.

With respect to claim 18, wherein the plurality of integrated attachment ears includes three attachment ears that are equally spaced along the external periphery of the threaded nut.

With respect to claim 20, wherein an outer surface of the second portion of the hollow elbow adapter includes a plurality of axially spaced ribs (see Attachment A).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 in view of Elvin (US 946,025), further in view of Humber (US 5,305,785), and

Art Unit: 3679

still further in view of Novakovich et al (US 3,376,053), as applied to claim 17, and still further in view of Martin (US 2,373,253).

The combination of the F21B34 document, Elvin, Humber and Novakovich et al teach all the limitations of claim 19 except that the retaining ring is grooveless. The F21B34 document does not disclose whether or not the retaining ring (2) is grooveless. Nevertheless, Martin teaches an elbow fitting assembly employing a grooveless retaining ring (washer 18). In view of Martin's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a grooveless retaining ring in order to better accommodate the outer surface of the elbow adapter and not cause the wear against the outer surface of the adapter that a grooved or ribbed retaining ring would cause.

Conclusion

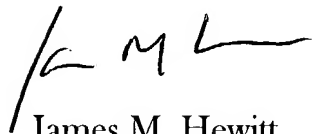
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hewitt whose telephone number is 703-305-0552. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 703-308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3679

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'J M Hewitt', with a stylized flourish at the end.

James M. Hewitt
Patent Examiner
Technology Center 3600